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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/594,506	09/28/2006	Kazuo Kuwahara	297018US0PCT	1684
22850	7590	03/19/2010	EXAMINER	
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314			YU, GINA C	
			ART UNIT	PAPER NUMBER
			1611	
			NOTIFICATION DATE	DELIVERY MODE
			03/19/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/594,506	Applicant(s) KUWAHARA ET AL.	
	Examiner GINA C. YU	Art Unit 1611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>January 6, 2010</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Receipt is acknowledged of amendment filed on December 16, 2009. Claims 1-10 are now pending.

Claim rejection made under 35 U.S.C. 112, second paragraph, as indicated in the previous Office action dated September 16, 2009, is withdrawn in view of the claim amendment made by applicant.

Claim rejection made under 35 U.S.C. 102 (b), indicated in the same Office action, is withdrawn in view of applicant's remarks.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Auschra et al. (US 2004/0143032 A1) in view of Allard et al. (US 5756110).

Auschra teaches dispersible inorganic or organic pigments comprising ATRP (Atom Transfer Radical Polymerization) polymers. The prior art inorganic pigments include titanium oxide, zinc oxide, among others. See [0086]; instant claim 1. The reference teaches suitable liquid carriers for the pigment dispersion include water, organic solvents and mixtures thereof. See [0021-0024]. The reference teaches the pigment composition is prepared by polymerization of inorganic or organic pigment particles with a block copolymer in the presence of a polymerization initiator capable of initiating the radical polymerization of ethylenically unsaturated monomers in the presence of a halogenated catalyst activating controlled atomic transfer radical polymerization. See paragraph [0096]; instant claim 1. Preferred polymerization initiators include alkyl halides, meeting instant claims 6 and 10. The suitable catalyst includes transitional metals present as oxidizable complex ions in the lower oxidation state of a redox system, such as copper ions. See paragraphs [0098—0104]; Instant claims 4, 5, 8, and 9. The reference also teaches the resulting pigment composition is useful for preparing coating compositions in various applications, including cosmetic formulations, and also suggests that dispersion of pigments and polymer additives are generally used in cosmetics, rendering the prior art cosmetic use of polymerized inorganic particle obvious. See [0001], [0004], [0025]; instant claims 2 and 7.

Auschra fails to teach the particle size of the metal oxide used in the prior art polymerization.

Allard teaches nanopigments of titanium dioxide, zinc oxide, and cerium oxides have been well known in cosmetic art. See col. 3, lines 9 – 50. The reference teaches nanopigments based on titanium dioxide can be either coated or uncoated, and are particularly effective in cosmetics as photoprotective agent, as the nanopigments do not exhibit the undesirable cosmetic effects of skin whitening. See Id. The most preferred size range for the primary particles of the nanopigments is from 10- to 50 nm.

It would have been obvious to one of ordinary skill in the art at the time of the present invention to modify the teachings of Auschra by using nanopigments of metal oxides such as titanium dioxide, zinc oxide or cerium oxide, as motivated by Allard. The motivation to do so is found in Auschra which teaches using the same type of metal oxides to make inorganic pigment/polymer complex suitable for various applications including cosmetics, and also in Allard which teaches nanopigments of the metal oxides, particularly titanium dioxides, are preferred in cosmetic art for its efficacy in photoprotection without whitening the substrate. Since the reference teaches nanopigments of titanium dioxides have been used as coated pigments, the skilled artisan would have had a reasonable expectation of successfully make the surface-treated metal oxides according to the Auschra teaching that have the primary particle diameter is 1 micron or less.

Response to Arguments

Applicant's arguments filed December 16, 2009 have been fully considered and are persuasive to overcome the previous grounds of rejections. Applicant's arguments are moot in view of the new grounds of rejections discussed above.

Conclusion

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GINA C. YU whose telephone number is (571)272-8605. The examiner can normally be reached on Monday through Thursday, from 8:00AM until 6:00 PM..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sharmila Landau can be reached on 571-272-0614. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/GINA C. YU/
Primary Examiner, Art Unit 1611